

INTRODUCTION

The The federal Land Retirement Program, recommended in the 1990 San Joaquin Valley Drainage Program Final Report and funded with the passage of the Central Valley Project Improvement Act (CVPIA) in 1992, has allowed for purchase of lands in drainage problem areas in Western Fresno County for retirement from irrigated cultivation. Approximately 1200 acres are currently in the possession of the Interagency Land Retirement Team (LRT) (Figure 1), and purchases of up to 13,800 additional acres are projected in 1999. The 15,000 acres will serve as a demonstration project to observe the effects of land retirement on wildlife and agriculture, drainage reduction, water table management, and effects on local economies.

Initiation of a habitat restoration experiment on 800 acres of the currently purchased lands will begin in 1999. The study will examine different restoration techniques to determine the best method to create native communities on retired farmland as quickly and inexpensively as possible. Twenty experimental plots, comprised of four different treatments with five replicates, will be established in the spring of 1999 (Figure 2). While each plot will cover 40 acres of land, only the central 10 acres of each plot will be manipulated. The surrounding land will be covered with a barley "cover crop" which will serve to stabilize the soil to prevent dust and erosion, prevent weed infestation, and to isolate experimental plots from each other to decrease interactions.

Barley was chosen as the cover crop because without tillage in the fall following planting, barley does not reseed efficiently and so is effectively sterile. This is a desirable feature on retired lands as it will prevent the barley from intruding on nearby agricultural fields. It will also not be a pest species in future years as the landscape is transitioned to native species.

Prior to initiation of barley cultivation on the 1200 acres currently owned by the LRT, a baseline biological survey was conducted by the Endangered Species Recovery Program (ESRP) to identify species presence and use of the demonstration site prior to any manipulation. Since most fields had been cultivated within the last two years, low diversity was expected.

**Figure 1. Land Retirement Demonstration Project Lands
in Western Fresno County**

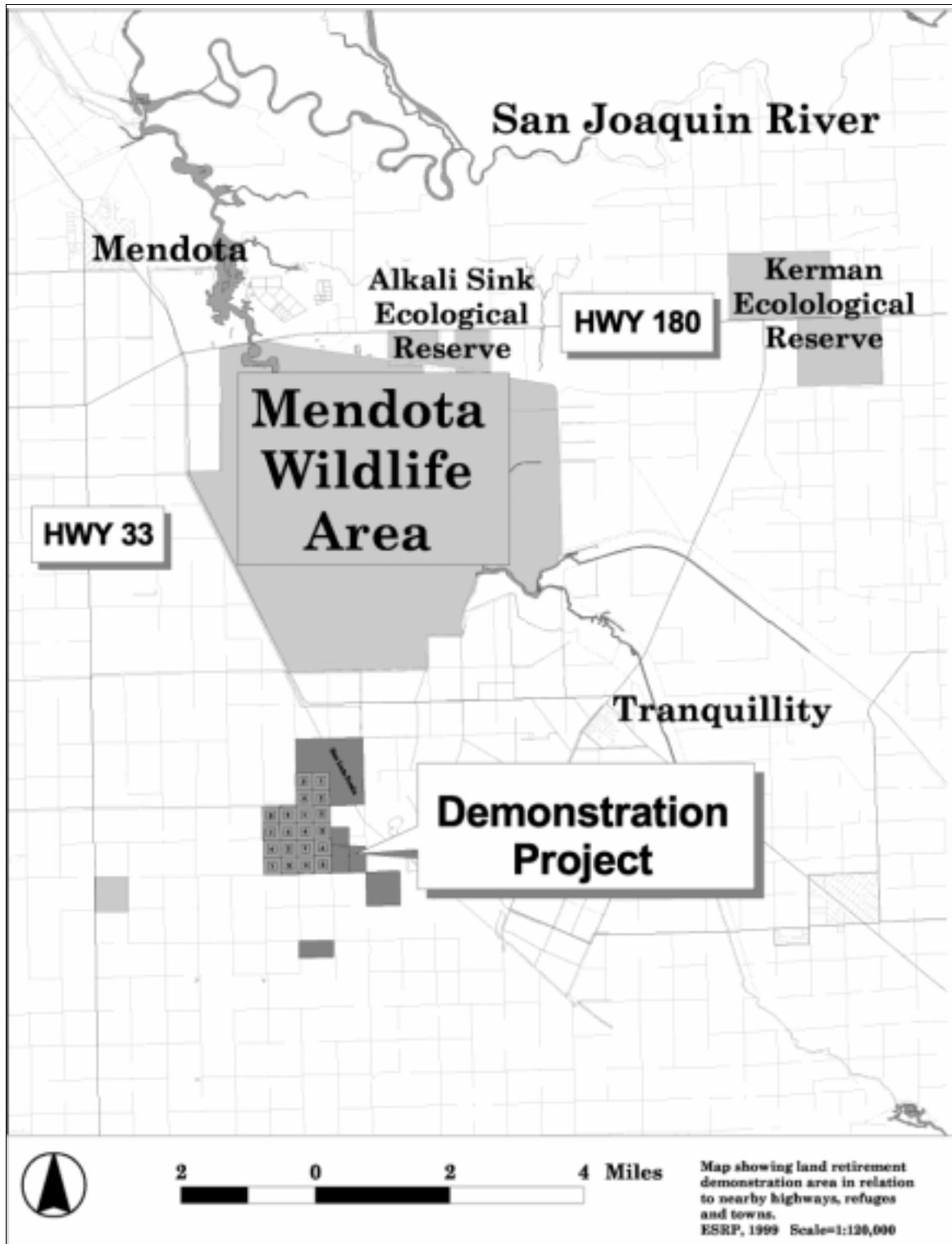


Figure 2. Land Retirement Demonstration Site Habitat Restoration Study

